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ABSTRACT

Although the first research on race and socioeconomic differences in nonverbal behavior was conducted in the 1930's, interest in these issues was not sustained. In order to further understanding of these previous studies, all the nonverbal categories that included more than three studies investigating race and class differences were examined. The resultant categories included proxemics (interpersonal distance and body orientation), touch, eye gaze, and verbal/nonverbal interaction. Meta-analysis of the studies on proxemics and eye gaze showed that racial differences in proxemic behavior appear to be mediated by social class differences, though blacks and whites share a developmental pattern of increasing interpersonal distance, and blacks engage in less direct body orientation. Although rates of eye gaze differed by race, patterns of looking more while listening than speaking are shared interracially. The findings suggest that there are differences in the nonverbal domain across race, class, and culture. For research and application, an awareness of differences rather than the assumption of sameness is important. (LLL)

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A Meta-analysis of Race and Socioeconomic Status Differences in Nonverbal Behavior

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A meta-analysis of race and socioeconomic status differences in nonverbal behavior

It is almost a truism that misunderstandings develop with regularity between groups of people that differ by race, class, or culture. Despite this general knowledge, misunderstandings or miscommunications still seem to persist with tenacity. In nonverbal communication, differences between ourselves and others are not often consciously noted, but are incorporated into our assessments of those others and into our evaluations of our interactions with them. In these situations a form of self-serving bias tends to surface; we tend to think that if all has not gone well, then there must be something wrong with the other person. After all, we were on our best behavior. While we all know that "people are different" we rarely incorporate that concept into our implicit understanding of nonverbal communication. Instead, we tend to interpret others' behaviors within the structure of our own nonverbal style system.

Until recently, the scientific community has not provided much guidance in this matter of interpreting behaviors outside of one's own style of communication. The first research on race and socioeconomic differences in nonverbal behavior was conducted in the 1930s (Kellogg & Eagleson, 1931; Justin, 1932), but interest in these issues was not sustained until the early 1970s. Additionally, these attempts to recognize and identify the diversity of American behavior have led to apparently conflicting conclusions, and, thus, have generally been ignored. For the most part, they have been collecting dust in the cobwebbed bins every discipline reserves for scientific pieces lacking an

immediately discernible pattern. This is unfortunate because, when viewed as a group, these studies contain a wealth of information.

The purpose of this paper is to dust off all of these pieces and show that, together, these studies make a great deal of sense and tell an important story. To create the data set, I examined all the nonverbal categories that included more than three studies investigating race and class differences. The resulting categories are proxemics (interpersonal distance and body orientation), touch, eye gaze, and verbal/nonverbal interaction. The very basic findings are similar across categories, and although each area also brings out unique information, only the two largest categories will be discussed as examples in the context of this presentation.

Method

For each category I collected all of the studies that (a) were published or presented at a conference, (b) recorded nonverbal behavior by some form of observation (as opposed to tapping behavior solely by projective measures), and (c) classified subjects by their race and/or social class.

For each study I considered whenever possible, three outcome indices. These were (a) the level of statistical significance, p was nonsignificant (ns) or at some level of significance (.10, .05, .01, .001); (b) the direction of the effect, the result was signed positively or negatively dependent upon the data supporting or rejecting the hypothesis; and (c) the effect size estimate (d), reporting the size of the effect without influence of sample size. This estimate is defined as the difference between the means of the two groups, divided by their common standard deviation. An effect size of .20 is considered small, an

effect size of greater than .50 is considered visible to the naked eye, and an effect size of greater than .80 is considered large (Cohen, 1977). Often, an index was not reported but enough information was provided in the text of the article to accurately calculate the desired index.

Results

Proxemics

The hypotheses concerning racial differences in spatial behavior are derived from Hall (1966), whose general thesis is that people from different cultures inhabit what Hall calls "different sensory worlds." Because of the cultural differences between blacks and whites in the U.S., Hall hypothesized that the spatial relations of these groups are dissimilar. I found twenty-one studies that evaluated the validity of this hypothesis. Two of these studies also examined socioeconomic status as well as race, and one other study investigated just socioeconomic status.

Hall (1966) hypothesized that blacks in the U.S. engage in a closer, more sensorially involved culture relative to whites. Predictions follow then that blacks would be more likely to maintain closer interpersonal distances and to orient their bodies more directly toward each other than would whites. As in most puzzles, however, the pieces don't fit as simply as expected.

Interpersonal distance. Of the 20 studies that showed any difference at all (one reported exactly equivalent results for both races), 50% found closer distances in blacks than in whites, which is what one would expect by chance. Of the ten significant studies, four reported closer distances in blacks, but six reported closer distances in

whites. The unweighted mean effect size was small (N = 15, mean d = -.23) and the meta-analysis was just significant (Stouffer's z = -1.80, combined p = .04).

It appears that the two groups are not participating in very different spatial relations at all. An eyeball analysis of the signs, however, suggests that subjects' age is interacting with the difference in distance maintained by the racial groups. Studies including subjects in kindergarten or elementary school were therefore characterized as "younger" (N = 8) and studies including subjects who were adolescents or adults as "older" (N = 12). In the sample involving younger subjects 87.5% of the studies confirmed Hall's hypothesis; black children interacted more closely with their peers than did white children. In the samples involving older subjects 75% of the studies disconfirmed the hypothesis; adolescent and adult blacks interacted at further distances than did adolescent and adult whites.

A chi-square analysis with two factors, age and direction of effect was performed. To increase the N and the precision of this analysis, samples reporting means for several age groups were broken down by age. A large effect resulted; black children do appear to maintain closer interpersonal distances than do white children, as predicted by Hall (1966), but by adulthood blacks appear to prefer greater distances than whites ($\chi^2(1) = 6.24$, $p \leq .05$, $d = 1.10$). A correlation between subject age and direction of the effect was also significant ($r(26) = .41$, $p \leq .05$, $d = .89$). A summary analysis of four studies that examined the interaction of age and race was also significant (Stouffer's $z = 3.50$, combined $p \leq .0002$).

In summary, these studies suggest that though blacks and whites share a developmental pattern of increasing interpersonal distance, (a) young black children interact more closely with each other than do young white children, (b) by junior high school, black children out distance white children, and (c) the greater interpersonal distance of blacks relative to whites is a difference persisting through adolescence and adulthood.

A racial interpretation is too quickly assumed, however, and it is not entirely correct. Of the seven studies controlling for SES in at least a rudimentary fashion, 71% reported no significant race difference, compared with 27% of the remaining 11 samples that tested for significance. Though a small sample, a Fisher's exact probability test was near significance ($p = .08$), suggesting that SES may well be influencing the spatial relations of the two cultures. Jones (1971) studied several ethnically different but similarly lower-class subcultures and he suggests that the surprising cultural homogeneity of distance scores among these subcultures reflects the existence of a "culture of poverty". These findings all tie together to suggest that proxemic race differences are at least partially mediated by social class.

Body orientation. The eight studies reporting data for body orientation all agree that blacks are less direct in their stance than whites, contrary to what would be expected based on Hall's (1966) original hypothesis. For five of the studies the difference was significant. An effect size could be generated for only four studies; the resulting mean effect was moderate in size (mean $d = .55$). For a summary analysis, data for the three nonsignificant results could not be

generated and zs for these studies were set at zero. Despite this highly conservative procedure the result was powerful (Stouffer's z = 4.16, combined $p \leq .0001$). In these studies, blacks were significantly less direct in their body orientations than whites were.

In summary, these studies show clearly that blacks engage in less direct body orientation than whites and that a developmental examination of this race difference might be profitable.

Of the four studies controlling for SES in even a rudimentary fashion, 50% reported significant race differences, compared with 100% of the remaining four samples. Though not significant in this very small sample (using Fisher's exact probability test, $p = .21$), it appears again, that SES may be influencing the different spatial relations of blacks and whites. Thus, the proxemic differences seem to reflect the different sensory worlds that different classes inhabit.

Eye Gaze

Several descriptive reports on nonverbal behavior in both children and adults suggest differences by class and /or by race in eye gaze (e.g., Byers & Byers, 1972; Goffman, 1971; Johnson, 1971; Kozol, 1967; Williams, 1972). Reports of racial differences include (a) frequency, e.g., blacks gaze at others less than whites do, particularly in the presence of an authority; (b) patterns of gaze, e.g., blacks gaze at different times than whites do; and (c) styles, e.g., blacks roll their eyes to express disapproval and negativity toward a dominant person, a communication uncommon in white behavior. Only frequency and patterns of gaze are discussed in the interests of time.

Eleven studies examined the validity of these reports of differences by race. Two more studies examined differences by class.

Hall's (1966) prediction that blacks experienced a more highly involved and immediate sensory world would include higher rates of eye gaze between blacks than between whites. As mentioned, however, the gaze of blacks has been anecdotally described as less frequent than that of whites. Also, amount of eye contact and direction of shoulder orientations are related (Mehrabian, 1968 a and b), and we have already found that blacks are less direct in their body stance.

Ten of the 11 studies on race reported that blacks gazed less frequently in conversations than whites did. This is a significantly greater number of studies than could be expected by chance ($\chi^2(1) = 5.82$, $p \leq .02$, $d = 2.12$. The mean effect size was moderate-large (N = 7, mean d = .73). For the summary analysis, data could not be generated for three studies and for the sample reporting nonsignificance. Despite the highly conservative procedure of setting zs for these studies at zero, the meta-analysis proved highly significant (Stouffer's $z = 4.40$, combined $p \leq .0001$).

All in all, that blacks gaze less frequently than whites do in conversation appears as a robust difference which spans many different settings and many different subjects beyond the usual college population. A continuation of this series of research would be a developmental analysis to discover whether or not differences in eye gaze frequency follow a pattern similar to interpersonal distance differences.

Two studies reporting class differences in eye gaze, found opposite relationships between lower- and middle-class subjects, so it is impossible at present to evaluate whether or not class is a contributing factor in the race/eye gaze relationship.

Regarding patterns of gaze while looking and speaking, previous studies on eye gaze by white adults (e.g., Exline, 1963; Kendon, 1967; Argyle & Ingham, 1972) have repeatedly found greater frequency and mean length of other-directed gaze during listening relative to speaking. However, in a micro-analysis of two encounters of a black male student with another black male and a white male (both of higher status than the student), LaFrance and Mayo (1976) found a complete reversal of eye gaze; the two black subjects looked more while speaking than listening. In their follow-up study of listening only, LaFrance and Mayo found that eye gaze by black conversants was significantly less than by white conversants, in a wide variety of settings.

This difference of less black eye gaze during listening, however, is very likely due just to the main effect of blacks gazing less overall than whites. Further, three other studies found a pattern in blacks similar to that found in whites and these studies all reported tremendous effects. Consequently, despite the one study countering these results, the mean effect size was still very large (mean $\underline{d} = 2.00$). Additionally, the meta-analysis of the four studies was highly significant (Stouffer's $\underline{z} = 3.70$, $\underline{p} \leq .0002$). The most accurate analysis has yet to be done; a race by conversation mode (listen, speak) analysis of variance would directly test race differences in gaze patterns during converstion.

In summary, these studies contribute the information that during interactions blacks gaze less frequently than whites do and that whereas rates of gaze differed by race, patterns of looking more while listening than speaking are shared interracially. Since no developmental research has been conducted, it is impossible to determine when racial differences in gazing behavior develop.

Discussion

Why different sensory experiences are associated with these particular races is another matter entirely, and largely a matter of speculation. Results with mixed-race dyads (therefore, also mixed-SES dyads in this case, (Thompson & Baxter, 1973) suggest that proxemic behavior is flexible, and can be somewhat adapted to the customs of the dyad partner. However, it does not appear to be the case that black and poor children are learning the nonverbal cues of the majority group since their interpersonal distances become significantly greater than distances maintained by whites and since their less direct body orientation and lower levels of eye gaze persist through adulthood. The differences in proxemic norms across classes may be due to the differential density being experienced on a day-to-day basis by the classes. The idea here is that lower-class individuals have less personal space (less spacious housing and urban life) which leads to a sense of crowdedness, which, in turn, leads to a need for greater interpersonal distance and reduced eye gaze whenever possible.

Some tentative support can be garnered for this drive model, which proposes that continued crowding creates an intolerance to crowding rather than habituation to it (an adaptation model). Baron, Mandel, Adams, and Griffen (1976) found a lower tolerance for crowded college dormitory conditions in students who came from high density homes. These students perceived their overcrowded quarters (double rooms that were turned into triples) as more cramped and perceived themselves as less in control and less cooperative than did students who reported having more space prior to college. Controlling for ethnic groups, Booraem, Flowers, Bodner, & Satterfield (1977) found that delinquent youths from higher

density families requested significantly more personal space than subjects from lower density families. Decreasing the levels of gaze is another way crowding sensitive individuals may be psychologically increasing interpersonal distance, thereby creating a more spacious personal bubble for themselves (Argyle & Dean, 1965; Argyle & Cook, 1976). These studies support a drive model, such that "past high density sensitizes persons to future crowding experiences" (Baron, et al., 1976) and suggest the importance of more directly testing this model's relevance for race differences in nonverbal behavior.

Conclusions

The meta-analyses of the 31 studies on proxemics and eye gaze indicate that race and class differences in nonverbal communication behavior do exist and that social class may be a powerful explanation of race differences. Of the seven studies on race controlling for SES in at least a rudimentary fashion, 71.4% reported no significant race differences, as compared with 17.6% of the remaining studies that tested for significance. This is a significant difference (using Fisher's exact probability test, $p = .006$).

Regarding further research, several conclusions can be made:

Several hypotheses regarding differences in nonverbal behavior are now identified. These are (a) that racial differences in proxemic behavior, in particular, appear to be mediated by social class differences: (b) that these differences appear to emerge over the course of development; (c) that a drive model (Baron, et al., 1976) may account for proxemic and other nonverbal differences by class and race; and (d) whereas blacks/lower-class individuals and whites/middle-class

individuals do appear to experience different sensory worlds, the behavioral results are counter to Hall's (1966) original hypotheses.

Of the 29 studies on race differences in nonverbal communication 14 did not report the SES of the subjects. Although not all of these studies were concerned with the effects of the class on nonverbal behavior, this review shows that such a concern is necessary, particularly when examining variables (e.g. race) confounded with SES. Socioeconomic status is a complex construct which can probably be best described by a heterogeneity of measurement. Obviously, use of only criterion per study and poor descriptions of criteria make comparisons between studies more difficult, since it is not clear that the studies even partially share definitions of SES. The consensus among sociologists is that the best single indicators of SES are occupation-based measures (Mueller & Parcel, 1981). In this review, occupation-based decisions were infrequent; neighborhood was the most common choice. That social class differences emerged despite the abuses in measurement of SES point to the robustness of the effects.

The construct validity of socioeconomic status and race is actually more complex than generally considered. Researchers sometimes use race and class as factors simply because of their presumed convenience of measurement and because they usually can be depended upon to provide at least main effects if not interactions. After finding an effect for race or class, however, it is not often clear what actually has been found -- is there a relationship with heredity, cognitive ability, achievement, motivations, social expectations, oppression, isolation, or something else? It is not enough to say that race or class and nonverbal variables are correlated. The mediators of these relationships must be explored.

One must also beware of minimizing the impact of black culture when pointing to class as an explanation of race differences. Assimilation into the middle class may require not only economic and occupational changes but also middle-class values and middle-class behaviors. That middle-class blacks evidence white middle-class patterns of nonverbal behavior may be a function of having to repudiate the black ethnic behaviors shunned by many middle-class whites, in order to maintain their new positions in mainstream culture.

The interview situation is the clearest example of the need created by whites for blacks to adopt white, middle-class behaviors. Black interviewees must adopt white middle-class patterns of greater eye gaze, to denote honesty as opposed to untrustworthiness to the white interviewer; and closer interpersonal distances and more direct body orientation, to indicate friendliness as opposed to hostility. Thus, in the middle class, anyway, race differences may be attenuated due to the pressures by the white, majority culture.

In closing, of utmost importance for both research and application, is an awareness of differences rather than the assumption of sameness. As stressed earlier, there are differences in the nonverbal domain across race, class and culture. The unstated assumption that there are no differences is a dangerous one. At the very least, research on skill which assumes no differences can lead to misleading results (e.g., when lower-class subjects are asked to decode a middle-class encoder) and the ethnography of communication will be sadly incomplete. At the worst, responses to day-to-day interaction, which assume no differences in nonverbal behavior, will continue to create miscommunications and misunderstandings (e.g., "She kept her distance from me," and "Don't look

at me in that tone of voice!") and negative attitudes (e.g., "He wouldn't look me in the eye," "You know, that know-it-all voice.").

Precisely because they crop up in the nonverbal domain, which everybody uses but few discuss, these misunderstandings persist. Thus, until we are able to recognize, respect, and understand differences in nonverbal behavior, we are helping to perpetuate the status quo of social and economic inequities by race and class.

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Note: "o" indicates one of the thirteen eye gaze samples.

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